

SUMMARY OF THE INVENTION

~~In a broad aspect, the invention may provide a pouch for medical use.~~

~~The pouch may include separable inner and outer pouches.~~

~~The invention may additionally include one or more of the following non-limiting features, although additional or alternative features will be apparent to the skilled man on reading the description of preferred embodiments:~~

According to the present invention, an ostomy pouch for receiving human body waste from a stoma includes an outer pouch and an inner pouch. The outer pouch is attachable to the body and it includes a curved periphery. The pouch has a sliding zipper fastener that is configured to permit the re-closeable opening of the outer pouch along part of the curved periphery for replacement of the inner pouch. The outer pouch has an aperture for accommodating a stoma. The inner pouch has an aperture at least partly aligned with the outer pouch aperture when the pouches are in an operative position. The inner pouch is securable and removeable from the outer pouch by a coupling that is separable. This separable coupling permits replacement of the inner pouch by a replacement inner pouch. The re-closeable opening on the curved periphery of the outer pouch is adequate in length to permit folding of an outer pouch wall so as to facilitate access to the separable coupling.

According to some preferred embodiments:

- (a)(i) The inner pouch may be fastenable to the outer pouch or to a body fitment. Such a body fitment may support the outer pouch.
- (a)(ii) The inner pouch may be fastenable by means of an adhesive coupling. The adhesive coupling may include an adhesive member and a non-adhesive member. The or an adhesive member may be mounted on the inner pouch and/or on the outer pouch/body fitment. The adhesive may be a peelable resealable adhesive.
- a(iii) The inner and outer pouches may have apertures which are generally aligned when the inner pouch is in an operative position within the outer pouch, at least to permit communication between the interior of the inner pouch, and the aperture of the outer pouch.

- (b)(i) The inner pouch may be made of a material that is disintegratable or dispersible, for example, to facilitate disposal of the inner pouch in a flushable toilet.
- (b)(ii) The material may be activatable to disintegrate or disperse by addition of an activating agent. The activating agent may be applied directly to the surface of the inner pouch or it may be added to the toilet water. The activating agent may be a pH-modifier and/or a solvent.
- (b)(iii) The pouch material may include an interior facing water resistant layer and an exterior facing water disintegratable/dispersible layer.
- (c)(i) The pouch (or at least one of the pouches if more than one pouch is present) may have a reclosable opening.
- (c)(ii) The pouch (or at least one of the pouches if more than one pouch is present) may include an opening and a sliding zipper for closing the opening. The opening may be at the seam of the pouch. The sliding zipper may comprise a slider having a characteristic to match, or accommodate, a curvature of the pouch (or a path along which the slider moves). The characteristic may be a degree of curvature of one or more guide surfaces or track-engaging surfaces of the slider. Such a characteristic may enable the slider to move smoothly around a non-linear path.
- (c)(iii) In the case of a pouch comprising separable inner and outer pouches, the outer pouch may be openable to provide access for removing and/or fitting the inner pouch.
- (c)(iv) A wall of the pouch (or at least one of the pouches if more than one pouch is present) may entirely or partly openable. An openable window portion may be defined in the wall, or an aperture may be openable in the wall, or the wall may be openable at its seam.
- (d)(i) The medical pouch may be a collection pouch for collecting body waste. The collection pouch may be an ostomy pouch. The term "ostomy" may include any or all of colostomy, ileostomy and urostomy.

~~Other non-limiting features and advantages of the invention may include~~ providing a pouch design that may meet one or more of the following, generally conflicting requirements: ease of use, ease of disposal of a waste-containing inner pouch; security and assurance against pouch leakage; and/or ease of manufacture.

~~Further non-limiting features of the invention will be apparent from the following description of preferred embodiments.~~

DESCRIPTION OF THE DRAWINGS

~~Non-limiting preferred embodiments~~ Embodiments of the invention are now described, ~~by way of example, only,~~ with reference to the accompanying drawings, in which:

Fig. 1 is a schematic section through a first pouch embodiment;

polyethylene foam backing approximately 0.8 mm thick with a hypoallergenic pressure sensitive acrylate adhesive that faces towards the landing surface 32. Another suitable material is a sheet substrate with pressure sensitive adhesive instead of a foam. In either case, the adhesive may initially be protected by a silicone release paper (not shown) prior to first use of the pouch. The landing surface 32 may be provide by a flexible film of plastics, for example, thermoplastics.

Referring to both Figs. 1 and 2, a wall, for example, the front wall 20, of the outer pouch 14 may be partly, or substantially entirely, openable to provide access for fitting or removing the inner pouch 12. In this embodiment, an openable portion 34 of the front wall 20 may be provided, in the form of a door, flap or hatch portion, to define an access window 35 in the front wall 20. The access window 35 may be of approximately the same size as the inner pouch 12, or it may be larger or smaller than the inner pouch. Generally, a larger size may aid easier insertion and removal of the inner pouch 12. However, the inner pouch 12 is flexible, and may be quite easily inserted or removed through a smaller-size access window 35. The access window 35 may be larger than the outer periphery of the first coupling member 30 of the inner pouch 12.

A second fastener 36 may be provided for fastening closed the openable portion 34. The second fastener 36 preferably provides a liquid-tight and/or gas-tight seal. The second fastener 34-36 may extend around, or border, a periphery of the openable portion 34 and/or the corresponding confronting edge of the access window 35 in the front wall 20. The second fastener 34 may, for example, be a zip fastener, a sliding zip fastener, a hook-loop fastener (e.g., Velcro TM), a hook-hook (e.g.,

embodiment, but a sliding zipper is preferred and is now described further.

Referring to Figs. 5-7, a first zipper track 50 may be attached to one of the front and rear walls 20, 22 of the outer pouch 14 in Fig 4 (alternatively, the attachment may be to 20, 34 in the embodiments of Figs. 1 – 3 as the flap opening is on the face instead of the seam), and a second zipper track 52 may be attached to the other of the front and rear walls 20, 22 of the outer pouch 14 in Fig. 4. The first and second zipper tracks 50, 52 may be male and female tracks, respectively. The zipper tracks 50, 52 may be generally curved to match the curved peripheral shape of the outer pouch 14 (for example, as seen in Figs. 8-10). A zipper slider 54 may be captive on the tracks 50 and 52 for fastening and unfastening the zip tracks 50, 52. The slider 54 may be generally channel shaped, and include a bridge 56 and two depending side walls 58 defining a channel region 60. The side walls 58 of the slider 54 may carry guides 62 that engage behind the tracks 50, 52 to hold the slider 54 captive on the tracks. The channel region 60 may be narrower at one end 54a (e.g. the right as seen in Fig. 5) of the slider 54 than the other end 54b. Moving the slider 54, for example, leftwards fastens the zip by pressing the male and female tracks 50, 52 into mutual engagement with each other. A pressing projection 64 located near the end 54a of the slider 54 may aid application of pressure to urge the tracks 50, 52 together. Moving the slider 54, for example, rightwards unfastens the zip by separating the male and female tracks 50, 52. Separation may be aided by a separation projection (blade) 66 depending from the bridge 56 and/or by a difference in the height of the guides 62 at the end 54b of the slider to promote lifting of one track relative to the other.

As best seen in Fig. 5, the slider 54 may have a curved characteristic that matches and/or accommodates the curved shape of the zipper tracks 50, 52. The curved characteristic may define a curvature that is not significantly smaller (e.g., radius of curvature is not significantly greater) than the maximum curvature (e.g., minimum radius of curvature) of the periphery of the outer pouch 14 over which the zip extends. For example, the curved characteristic may be an interior surface 56a of the bridge 56, which has a curvature that is not significantly smaller than the maximum curvature of upper periphery of the pouch. (The bridge surface 56a may be shaped to have a radius of curvature that is not significantly greater than the minimum radius of curvature of the upper periphery of the pouch). The bridge 56 may act as a guide for guiding movement of the slider 54 relative to the tracks 50, 52. Additionally or alternatively, the curved characteristic may be defined by surfaces 62a of the guides 62 that confront the zipper tracks 50, 52. The guide surfaces 62a may be inclined or curved along an arc 68 having a curvature that is not significantly smaller than the maximum curvature of the upper periphery of the pouch. (The arc 68 may have a radius of curvature that is not significantly greater than the minimum radius of curvature of the upper periphery of the pouch).

Such a curved characteristic may enable the slider 54 to slide smoothly around the curved shape of the outer pouch 14. This may be especially advantageous for the elderly or less dextrous, or for ostomates with sensitive stomas who wish to avoid discomfort as the slider 54 is operated.